

# How to save hundreds of thousands of lives in Europe

## Summary Points



**Air pollution causes significant health, wellbeing, social and economic burden in Europe, and is the biggest environmental threat that Europeans face:** estimated up to EUR 853 billion annually. The potential health and financial savings from decreasing exposure to air pollution are dramatic: savings outweigh costs by at least 6:1.



The **Ambient Air Quality Directives should fully align with the World Health Organization guidelines (2021) everywhere in the EU by 2030 at the latest**, greatly reducing related morbidity and mortality in Europe, and saving many times more money than is spent on air pollution control.



**Legally binding limit values for pollution control should be implemented, in keeping with the World Health Organization guidelines (2021).** This should include ground-level ozone, as a limit value, and not a target value.



Air pollution measurement and monitoring are crucial: **a comprehensive, dense network of air pollution monitoring stations should be ensured**, including ‘supersites’, that also take into account the vulnerabilities and exposures of the local population.



The current impact of air pollution is significant and largely preventable, we **need to act quickly** with a swift legislative process with clear steps and milestones.

## The Threat and Opportunity

Air pollution is a major global threat to health and wellbeing. It is the most significant environmental threat to health that Europeans suffer, and we are faced with a public health emergency from air pollution, responsible for the deaths of hundreds of thousands of people in Europe every year<sup>1</sup>. The cost of the morbidity and mortality for society, governments, health systems, agriculture and infrastructure is shocking; up to EUR 853 billion annually for the EU, [according to the European Commission itself](#). The European Public Health Alliance (EPHA) see this as an unnecessarily significant, and largely preventable, health burden.

<b>Net benefits</b>	Low	<b>0</b>	<b>€29.0 bn</b>	<b>€36.2 bn</b>	<b>€37.9 bn</b>
	High	0	€90.4 bn	€115.7 bn	€123.6 bn
<b>Benefit-cost ratio</b>	Low	-	<b>10:1</b>	<b>7.5:1</b>	<b>6:1</b>
	High	-	28:1	21:1	19:1
<b>Net GDP impact</b>		+ /- 0%	+ 0.26%	+ 0.38%	+ 0.44%
<b>Key health impacts</b>					
<b>Annual premature mortality compared to 2020 / baseline</b>	Due to PM <sub>2.5</sub>	<b>-56.3%</b>	<b>-73.1%</b> -38% vs baseline	<b>-77.9%</b> -49% vs baseline	<b>-79.5%</b> -53% vs baseline
	Due to NO <sub>2</sub>	<b>-80.9%</b>	<b>-83.3%</b> -12% vs baseline	<b>-84.0%</b> -16% vs baseline	<b>-84.7%</b> -20% vs baseline

Assessments from the European Commission on costs, benefits and changes in premature mortality based on three different policy scenarios of “partial”, “closer” and “full” alignment with the WHO Air Quality Guidelines<sup>2</sup>.

Action on air pollution will bring a significant net benefit to the health and wellbeing of population of Europe and will positively benefit the economy.

<sup>1</sup> EEA. 2022. Air Quality in Europe 2022.

<sup>2</sup> European Commission. 2022. “Impact Assessment Report Part 1.” Brussels.

## “Safe” levels of air pollution exposure

A strong legal framework, including limit values and enforcement mechanisms, is needed. Legally binding limit values are the strictest regulations for the levels of air pollution by the EU legislation. It is the most effective type of standards for protecting everyone, especially the most vulnerable. They will also work to spur change and innovation that may not be otherwise possible without a strong legislative deterrent to polluting.

The Commission proposes to reduce these pollution limits, but not in line with the WHO’s guidelines; pushing for air pollution to reach a standard, which will already be outdated, by 2030. A response that is not in line with scientific evidence or with the voice of the health community. This alignment should be achieved for all pollutants included in WHO’s 2021 guidelines, namely fine particulate matter, particulate matter (PM<sub>10</sub>), NO<sub>2</sub>, sulphur dioxide (SO<sub>2</sub>) and ozone. Contrary to the Commission’s proposal, ground-level ozone (O<sub>3</sub>) should be subject to a limit value and not a target value.

New studies and findings are highlighting new risks previously unknown around the dangers of air pollution, and experts now regard there as being no safe level of air pollution exposure<sup>3</sup>. There are also emerging pollutants of concern, which the WHO is starting to recommend be monitored, modelled and potentially regulated. To best protect health, EPHA believes that future updates should occur through a mechanism that automatically updates and reviews the air quality legislation, speeding up its implementation.

## Focusing on vulnerable people

Air pollution affects different people differently, and some groups are more susceptible to the effects of air pollution exposure. Age and comorbid disease affect the level of risk that someone faces when exposed to air pollution<sup>4</sup>. Vulnerability factors to the health impacts of air pollution are diverse and can be cumulative. Socio-economic status sees unequal environmental exposure between affluent and deprived populations. Climate change will increase some of these vulnerabilities. A comprehensive definition of vulnerable and susceptible groups in accordance with the WHO is needed, including explicit mention of health inequalities, which, in the current text, are underemphasised, considering their impact on individuals.

An important part of the outcome of individual risk relies on health information provision and health literacy, and EPHA believes individuals should have clear, understandable, easy-to-use, accurate, timely and local air quality information, which currently is not always available. The legislation should ensure usability.

## Monitoring and Enforcement

For a proper understanding of pollutants dispersion, the density and representativity of monitoring stations are key. The number of people covered by a single monitoring station outlined in the AAQD proposal is not in line with the voice of the health community, including EPHA, and should be increased. The criteria for the location of sampling points should include the exposure of vulnerable and susceptible groups, which is currently somewhat lacking in the AAQDs around placement of monitoring sites, and especially around the placement of “supersites”, where emerging pollutants of concern will be monitored.

Special note should be made of the new provisions in this revision for legal action for those affected by air pollution. Currently, [barriers to access to justice exist throughout Europe](#); the legal process for seeking damages due to air pollution should be straightforward, tested and should not see unsustainable costs prohibiting access to justice. It should also be robust so that affected parties do not need to try and argue science or seek complex analyses to support causal effect.

EPHA is advocating for a much stronger AAQD legislation. It is imperative that strong, robust and stringent controls are enacted across the region with the urgency this public health emergency deserves. The revision of the Ambient Air Quality Directives gives a rare opportunity to transform the air we breathe, the health burden we accept, and the environmental damage caused by pollution. Given the large health, social and environmental costs we all suffer each day and year, EPHA is pushing for an ambitious policy to be put in place. This will have co-benefits for the European approach to environmental policy in the coming years, including the Zero Pollution Action Plan and the Green Deal.

<sup>3</sup> Jovanovic Andersen, Zorana. 2022. “Long-Term Exposure to Air Pollution - Effects on Health.” Presentation at European Parliament

<sup>4</sup> WHO. 2021. WHO Guidelines 2021. <https://apps.who.int/iris/handle/10665/345329>.